

YIELDING

$$\phi P_n = 0.9 \times A_g \times F_y$$

$$100^k = 0.9 \times 4'' \times t_p \times 50 \text{ ksi}$$

$$t_p = \frac{100^k}{0.9 \times 4'' \times 50}$$
$$= 0.57''$$

= 9/16 OOST SHY  
USE 5/8

$$\phi P_n = 0.9 \times 5/8 \times 4'' \times 50 = 112.5^k$$

$$DCR = 100/112.5 = 0.89$$

FRACTURE

$$100^k = \phi A_{NET} \times F_u$$

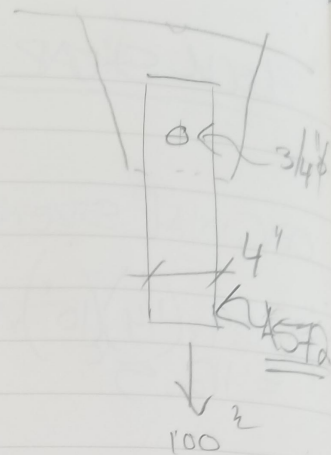
$$100^k = (0.75)(4 - 3/4 - 1/8) \times t \times 65$$

$$t_p = \frac{100}{0.75(3.125)65} = 0.65''$$

⇒ USE 3/4" PLATE

$$\phi P_n = 0.75(4 - 3/4 - 1/8) \times (3/4) \times (65) = 114^k$$

$$DCR = 100/114 = 0.877$$



$F_y = 50 \text{ ksi}$   
 $F_u = 65 \text{ ksi}$

GOVERNS